

The Combined Annual Economic Impacts in California of CalPERS and CalSTRS Retirement Income Benefit Payments

April 2007

Prepared for

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and

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by the



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Summary

The California Public Employees' Retirement System (CalPERS) accepts funds from public agency employers and their employees, and then invests those dollars to provide a secure retirement at the end of these employees' careers. CalPERS earned a 9.3% rate of return during the past decade. These earnings pay an average of 76.8% of the retirees' monthly checks.

The California State Teachers' Retirement System (CalSTRS) fills a similar role for many California education agencies, accepting moneys from school district employers and from their teaching staff, as well as a smaller amount from the State of California, and then investing those dollars to provide a secure retirement at the end of these teachers' careers. CalSTRS has achieved a 9.1% rate of return over the past decade, with an annual rate of 13.21% in 2006. These earnings pay almost 75% of the retirees' monthly checks.

One consequence of this steady performance by both funds is that retired teachers, firefighters, police, state scientists, school bus drivers and dozens of other occupational groups have become a significant economic engine in their communities through spending their income payments, and the resulting "economic spin-off."

Purpose of study:

This study is intended to examine the economic impacts of the California Public Employees' Retirement System (CalPERS) and the California State Teachers' Retirement System (CalSTRS) on the economies of the State of California and its 58 Counties. CalPERS also plans to separately study the economic impacts of its \$59 billion invested in California and the economic impacts of health care payments that CalPERS makes here.

About the Two Pension Funds:

- During the first months of 2007, the combined assets of the top two US public pension funds grew to an all-time high of \$391.6 billion.
- Between the two, the retirement funds served 2,285,524 active, inactive and retired members, making a total of 649,123 payments to retirees, survivors and disabled teachers and public employees during FY 2005/2006.
- In 2006, CalPERS made payments to 389,071 retirees living in the State (85.3% of the total 468,674 beneficiaries) and those payments account for \$7.737 billion out of a total payment of \$9.068 billion paid to all retirees, survivors and disabled workers. CalSTRS payments to retirees living in the State are 87.9% of the total amount paid out, about \$6.03 billion to 285,085 beneficiaries.

- Over the past decade, CalPERS has earned at an average rate of 9.3% per year, and CalSTRS at 9.1%. On account of that performance, investment earnings account for 75% of teacher retirement paid out by CalSTRS, and (on average of 2,950 different employers), 76% of public employee retirement paid by CalPERS.
- FY 2005/2006 total net *earnings* on investment pools maintained by the two funds combined were \$20.8 billion for CalPERS and \$14.26 billion for CalSTRS, a total of roughly \$35 billion.

Joint Findings on the Annual Impacts of Benefits Payments:

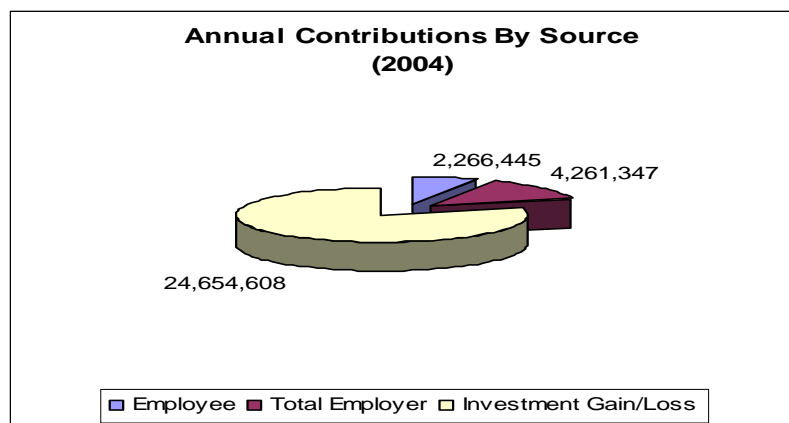
- Combined benefit payments in 2006 of \$13.766 billion support a total *output* (the ripple effect of business and government revenues as spending from those benefit checks works its way through the California economy) of about \$21.063 billion. This amount of economic output totals more than the total value of export goods to trade partners such as Canada, Mexico, Europe, or Latin America (in 2005). During this period, only Asia, of all California trading partners, received exports of greater total value.
- This economic activity supports a total of 138,974 jobs, with total compensation of around \$4.823 billion. By comparison:
 - The new biotechnologies industry supplies a total of 60,000 jobs in the state.
 - The truck transportation industry supplies a total of 121,171 jobs here.
- The total impact by the two funds on *value added* to the state's economy by business activities, the Gross State Product, is about \$10.252 billion, about 0.65% of the \$1.556 trillion GSP. According to the Bureau of Economic Analysis (comparing to 2004, the last year with complete data available) the two funds add nearly as much to the state's economy as do:
 - the hotel and accommodations industry (\$10.377 billion) or
 - the metal fabrication industry (\$9.959 billion) or
 - more than forestry and fishing (\$6.440 billion)
- On average, each dollar "invested" by the State of California or local government agencies with CalPERS returns \$8.55. Each dollar invested by the State of California and local school districts in the CalSTRS retirement pool yields a return of about \$6.71 to the California economy.
- State and local governments gain \$1.358 billion in revenues as a result of payments and the ensuing spin-off to California's economy from the two agencies' income benefit payments to retirees. This amount is equivalent to more than 1% of the 2007 \$103 billion state general fund budget.
 - The same agencies gain a total of \$778,850,165 in 2006 from spending related to CalPERS retirement income payments in California, a yield of \$0.56 in revenues from each dollar "invested" in the CalPERS retirement pool.

- State and local governments gain \$606,960,115 per year in new revenues as a result of CalSTRS retirement income payments in California. Each employer dollar “invested” yields \$0.44 in government revenues.

About CalPERS and public employee retirement benefits:

- With assets of \$232.5 billion at the beginning of 2007, CalPERS is the largest of the U.S. state public retirement programs.
- The fund builds a pool of retirement savings for more than 1 million active members and more than 440,000 retirees.
- The average beneficiary retired at age 60 after almost 20 years of service and received benefit payment checks of about \$1,876 monthly.
- Over the past 20 years, earnings on investments have averaged 10.6% and investment earnings now provide for an average of 76.8% of retiree income benefits paid.

For more on the economic impacts related to CalPERS retiree income payments, see *The Economic Impacts of CalSTRS Benefits Payments* at www.calpers.ca.gov.



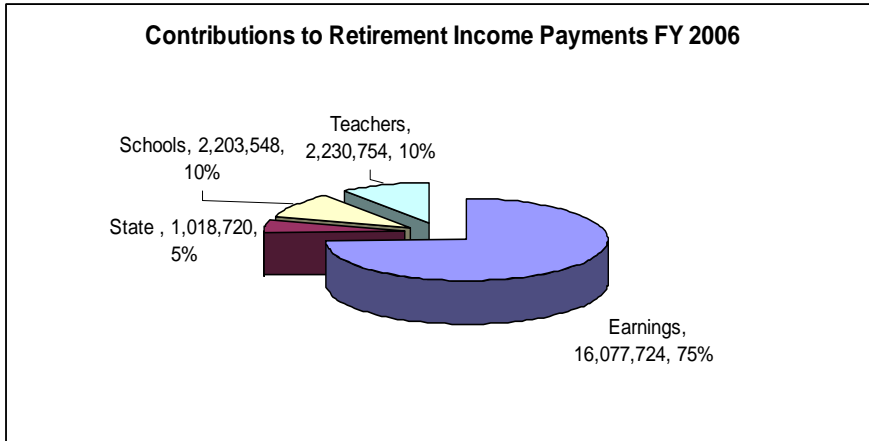
Source: CalPERS

Caption: Investment earnings pay 76.8% of all pensions, and employees contribute another 11.5%

About CalSTRS and teacher retirement benefits:

- With assets of \$159.1 billion at the end of February 2007, CalSTRS is the second largest of the state public retirement programs, and the largest teacher retirement fund.
- The fund builds a pool of retirement savings for 453,000 active members and makes benefits payments to 181,833 retirees, 18,833 survivors and 7,683 disabled workers.
- Teachers do not receive Social Security payments, and many have no employer paid health care in retirement.
- The average beneficiary retired at age 61.2 after almost 26 years of service and received benefit payment checks of about \$3,810 monthly.
- Over the past decade, earnings on investments have averaged 9.1%, and investment earnings now provide for almost 75% of retiree income benefits paid in 2006.

For more on the economic impacts related to CalSTRS retiree income payments, see *The Economic Impacts of CalSTRS Benefits Payments* at www.calstrs.com



Source: CalSTRS 2006 Comprehensive Annual Financial Report

Caption: Investment earnings pay 75% of all pensions, and teachers contribute another 10%

Annual Economic Impacts in the State of California

The economic impacts of the \$13.766 billion paid in benefit payments in the State of California are shown in the tables below. The methodology and terminology are discussed in the following section.

The California Economy in Perspective

Table 1 shows an overview of the California economy in 2003, the most recent year for which detailed composition data are available. The total of all business and government revenues was about \$2.749 trillion. Of this amount, the value added, called the Gross State Product (GSP), the measurement of new value created in the economy, was \$1.556 trillion, which is the best measure of the overall productivity of the economy. There were about 20,057,000 jobs, earning total compensation of about \$875 billion.

Table 1. OVERVIEW OF THE CALIFORNIA ECONOMY

State	Total Output	Value Added	Employee Compensation	Employment
California	\$2,749,082,404,000	\$1,556,387,098,000	\$875,496,202,000	20,056,812

Note: Data based on 2004 U.S. Bureau of Labor Statistics Data (ES202 Report).

Combined Economic Benefits Resulting from CalPERS and CalSTRS Benefit Payments

**TABLE 2
SUMMARY OF ECONOMIC BENEFITS RESULTING FROM CalPERS AND
CalSTRS 2006 COMBINED BENEFIT PAYMENTS**

State	Benefit Payment	Total Output	Value Added	Employee Compensation	State and Local Government Taxes	Employment
California	\$13,766,575,181	\$21,064,637,784	\$10,252,027,366	\$4,824,224,492	\$1,385,810,280	138,974

Note: State and Local Government Taxes show only tax generation, not distribution to local government.
Any differences due to rounding.

TABLE 3
CALIFORNIA GENERATION OF ECONOMIC BENEFITS
FROM CalPERS AND CalSTRS COMBINED BENEFIT PAYMENTS

California- Statewide	Direct	Indirect	Induced	Total
Total Output	\$13,766,575,181	\$3,516,298,451	\$3,781,764,152	\$21,064,637,784
Value Added	\$6,079,213,757	\$1,934,015,443	\$2,238,798,166	\$10,252,027,366
Employee Compensation	\$2,746,716,449	\$1,014,486,022	\$1,063,022,021	\$4,824,224,492
Employment	83,616	24,585	30,773	138,974
State and Local Taxes				\$1,385,810,280

Note: Any differences due to rounding.

TABLE 4
CALIFORNIA SECTOR DISTRIBUTION OF ECONOMIC BENEFITS
CREATED BY CalPERS AND CalSTRS COMBINED BENEFIT PAYMENTS

NAICS Sector	Sector Name	Total Output	Employee Compensation	Employment
11	Agriculture, Forestry, Fishing and Hunting	\$145,963,593	\$19,972,591	1,251
21	Mining	\$53,797,751	\$7,862,814	120
22	Utilities	\$300,324,434	\$39,435,323	367
23	Construction	\$101,279,729	\$34,540,365	827
31-33	Manufacturing	\$2,039,035,063	\$302,795,182	5,680
42	Wholesale Trade	\$1,007,467,360	\$344,543,758	5,863
44-45	Retail Trade	\$1,899,243,747	\$673,940,057	23,983
48-49	Transportation and Warehousing	\$440,013,304	\$167,243,335	3,833
51	Information	\$635,335,082	\$132,046,722	1,745
52	Finance and Insurance	\$1,601,562,082	\$495,129,496	7,419
53	Real Estate and Rental and Leasing	\$892,659,324	\$80,645,745	4,937
54	Professional, Scientific, and Technical Services	\$786,682,813	\$298,499,013	6,484
55	Management of Companies and Enterprises	\$201,694,656	\$93,381,061	1,061
56	Administrative and Support	\$378,762,080	\$162,100,411	6,408
61	Educational Services	\$226,875,042	\$124,807,904	4,433
62	Health Care and Social Assistance	\$2,156,643,348	\$1,015,320,429	25,150
71	Arts, Entertainment, and Recreation	\$269,721,459	\$100,453,293	4,384
72	Accommodation and Food Services	\$1,034,653,377	\$343,318,670	19,304
81	Other Services (except Public Administration)	\$794,346,651	\$285,664,517	14,316
92	Public Administration	\$2,347,061,650	\$102,523,806	1,409

Note: Model adjusts for intra-county trade.
Any differences due to rounding.

Return on State and Local Employer Contributions Invested

Slightly more than 76% of the retirement payments made to CalPERS comes from investment returns, and another 11.5% from employee contributions. Only 11.7% comes from employers. Each dollar “invested” by government agencies in the CalPERS retirement pool, matched by employees, invested, and then paid to retirees and circulated through the economy, results in a return of \$8.55.

75 % of the retirement payments made to CalSTRS beneficiaries comes from investment earnings, and another 10% comes from employee contributions. Only 10.2% of the total

paid out comes from employer contributions, and another 4.7% from State contributions. So, on average each dollar “invested” by the State and school districts in retirement yields a return of about \$6.71 to California’s economy.

Government Revenues Resulting from Retirement Payments

In addition, this economic ripple effect generates payments to the government, fees and taxes to support services. The total annual impact on these government revenues is also sizeable: \$1.385 billion per year is returned to state and local governments as a result of retirement income payments in California. If you look at each dollar paid by public employers as “invested” in pension funds, then that dollar returns again as \$0.56 in revenues from CalPERS retirement payments, and \$0.44 in revenues from CalSTRS retirement payments.

Impact of Each Employer Dollar “Invested” in CalPERS		
	Employer Investment (11.7%)	Total Impact (100%)
Total economic impact from each employer dollar invested	\$1,385,128,251	\$11,838,703,000
Return on Investment to the California Economy		\$8.55
Total government revenues earned by each employer dollar invested	\$1,385,128,251	\$778,880,165
Return on Investment to State and Local Government Revenue		\$0.56

Chart Title: *Impact of Each Employer Dollar “Invested” in CalPERS in 2006*

Caption: Employer and taxpayer dollars are leveraged by employee contributions, investment earnings and the ripple effect to earn a “return” on the initial investment

Impact of Each Taxpayer Dollar “Invested” in CalSTRS		
	Schools (10.2%)/State (4.7%)	Total Impact (100%)
Total economic impact from each taxpayer dollar invested	\$ 1,079,434,344	\$9,225,934,563
Return on Investment to the California Economy		\$6.71
Total government revenues earned by each Taxpayer dollar invested	\$1,079,434,344	\$606,960,115
Return on Investment to State and Local Government Revenue		\$0.44

Chart Title: *Impact of Each Employer Dollar “Invested” in CalSTRS in 2006*

Caption: Employer and taxpayer dollars are leveraged by employee contributions, investment earnings and the ripple effect to earn a “return” on the initial investment

Methodology:

Data Used: This study is based on data covering the calendar year 2006. The retirement funds provided the number and the amount of benefits payments paid to retirees in each zip code, which was then aggregated by County and region, the basic areas that IMPLAN correlates to other economic data.

Using and Input-Output Model: Measuring the economic impacts created by benefits payments requires the use of a model of the county or regional economy which can show the full effects to all sectors of the area. Recipients spend their benefits payments on household consumption (for example, utilities, groceries, retail purchases, transportation, local taxes and other categories. These business and public entities in turn make purchases, take profits and pay employees – all of which would not take place without the benefits payments. In a further round, those owners, employers and employees also spend their incomes, generating a second round of incomes to other businesses and to local government suppliers (and then a third round and so on...) Thus, the sum of all the successive rounds of benefits will be much higher than the original benefits payments. In order to measure the total effects, researchers use an econometric model called an *input-output* model, which was originally created during WWII to predict how much of critical materials would be required to produce a target level of industrial output.

IMPLAN: This study uses the IMPLAN model (at one time an acronym for a IMPact Analysis for PLANning, IMPLAN is now the formal name of this widely used tool), developed in the mid 1970s by the USDA, the Forest Service, and University of Minnesota economists for community impact analysis of Federally-funded projects. IMPLAN is currently specified as the methodology required on many Federal and State public works and natural resources projects and is widely used in California for California Environmental Quality Act (CEQA) reviews.

The IMPLAN model must be calibrated for each local economy where impacts will be measured. The calibration requires a model for the local economy which shows all of the productive sectors, and measures the interconnections between them. The calibration is based on data from a US Bureau of Labor Statistics the ES-202 survey of local businesses, updated every two years. The update used in this study was performed in 2004.

Researchers:

Dr. Robert Fountain is a *professor emeritus* at California State University Sacramento, having over 25 years of experience teaching and research on housing and regional economics topics. He has a doctoral degree from UCLA, with major field concentration in Housing, Real Estate, and Urban Land Economics. Other fields of study include Finance, Urban and Regional Planning, and Research Methodology.

He is the Director of the Applied Research Center at Sacramento State and has also served as Chief Economist for the Sacramento Regional Research Institute and Director of the Real Estate & Land Use Institute at Sacramento State.

Dr. Fountain's experience in economic analysis over a range of related topics such as economic forecasting, economic development, land use planning, housing market analysis, labor market and educational issues, and many others allows him to go "outside the box" and identify relationships between issues which have an integrated effect on the regional economic environment.

Dr. Robert Waste studied and taught at Harvard and Yale and received his PhD from the University of California at Davis. He is now a professor in the Department of Public Policy and Administration, California State University, Sacramento; and Faculty Advisor to the California Executive Fellows Program, a joint program of the CSUS Center for California Studies and the Office of the Governor of California. Previously, he was Chair of the Department of Public Policy and Administration.

Since 2002, Dr. Waste has served as the Chair of the Sacramento City Planning Commission. He.

His books include:

- *Independent Cities: Rethinking U.S. Urban Policy* (New York: Oxford University Press, 1998).
- *The Ecology of City Policymaking* (New York: Oxford University Press, 1989).
- *Power and Pluralism in American Cities: Researching the Urban Laboratory* (Westport, CT: Greenwood Press, 1987).

Both Dr. Waste and Dr. Fountain are CalPERS annuitants.